



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,080	06/08/2001	Edward G. Winston	10007217-1	9400

7590 06/02/2006

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

QIN, YIXING

ART UNIT	PAPER NUMBER
----------	--------------

2625

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/876,080

Applicant(s)

WINSTON ET AL.

Examiner

Yixing Qin

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

In response to applicant's amendment received 3/17/06, all requested changes have been entered.

Response to Arguments

The Examiner agrees that the Roberts et al and Lenhertz et al references do not teach the amended claims. However, upon further consideration, a new ground(s) of rejection is made in view of Goto (Japanese Patent Publication number 2002-149388). Goto discloses in P[0011] and [0012] that their invention is trying to speed up printing in a job splitting environment using a load based printing system. P[0117] that if a number of copies of a job exceeds a threshold, the job is divided using a default means and sent to two or more printers. Although the applicant's claims call for thresholding based upon pages, the number of copies has a direct relationship with the number of pages. That is why the Examiner believes it would be an obvious variation to use number of pages as opposed to number of copies. Please see the rejection below.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2625

I. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts et al (U.S. Patent No. 6,650,431), in view of Goto (Japanese Patent Publication number 2002-149388).

Claims 1, 13, 17, 21. A computer based method for maximizing printing speed of a print job, comprising the steps of:

The Roberts reference discloses a way to speed up printing of a print job based upon an index.

It does not explicitly disclose, "Administratively setting a threshold value to determine how many pages a print job must contain to be split and determining if the pages in the print job meet a criteria based on the threshold value and the information in the index;"

However, Goto discloses in P [0117] that if a number of copies of a job exceed a threshold, the job is divided using a default means and sent to two or more printers.

Roberts and Goto are combinable because they are both in the field of speeding up print jobs

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have improved Roberts' invention with Goto's ability to route print jobs based upon the number of copies requested. Again, although the applicant's claims call for thresholding based upon pages, the number of copies has a direct relationship with the number of pages, and it would be an obvious variation to use number of pages as opposed to number of copies

The motivation would have been to have a more efficient way to allocate print jobs

Therefore, it would have been obvious to combine Roberts and Goto to obtain the invention as specified.

Roberts discloses "locating pages in the print job;" "creating an index of information relating to the locations of the pages in the print job;" (Fig. 4 of Roberts and column 9, lines 24-33, that additional pages with identification tags 430, 432, 434 and 436 (i.e. **indexes**) are put into a print job. Note these pages are not the actual print job, but additional pages created to facilitate in the printing of the job. Of course, one would understand that pages need to be located in order to be placed correctly.)

Roberts discloses "splitting the print Job into a plurality of sets of pages if the pages in the print job meet the criteria; and" (Fig. 3 and column 9 lines 9-10 of Roberts discloses that that identifier 306 identifies the first colored pages to insert into the document. One can see in Fig. 4 that the colored and black and white pages (i.e. criteria is colored, black/white) are separated into different "groups" according to information in the tags.)

Roberts discloses "delivering said plurality of sets of pages to a plurality of printers, respectively, based on me information in the index." (Note in Fig. 1 and column 6, lines 51-63 that colored and black and white pages are sent to different printers.)

Claims 2, 14, 18. These claims have been addressed in claim 1 above. Goto disclosed in P[0017] the jobs are split according to the number of copies.

Claims 3, 15, 19. Roberts discloses "The method of claim 1, wherein the print job is split into a plurality of substantially equal sets of pages. " (From claim 1, if there were the same amount of colored and black and white pages, then they would be split equally. Also note from claim 2 below, the Barry algorithm splits quantities substantially equally as well.)

Claims 4, 16, 20. Roberts discloses "The method of claim 1 wherein the step of locating the pages in the print job includes the step of scanning the print job for page markers" (in column 8, lines 21-24 that a parser can be used to identify page boundaries.)

Claim 5. Roberts discloses "The method of claim 4, wherein the step of creating an index of information includes the step of saving the location of the page markers identified during the scanning step. " (column 8, lines 34-44, the idea of generating page order information based upon where pages start and end. This information is created by using the parser and information in the identification tag, and would be obvious if one wanted to store this information along with that in the identification tag since the identification tag already has page related information.)

Claim 6. Roberts discloses "The method of claim 1, further comprising the step of scanning the print job prior to locating pages to determine whether the print job is of the

Art Unit: 2625

type that is capable of being split." (column 12, lines 45-49, that there is a determination of whether a job is to be sent to multiple printers. Obviously, if not to be sent to multiple printers, it would be a job that is not split.)

Claim 7. Roberts discloses "The method of claim 6, further comprising the step of delivering the print job to a printer without proceeding to the locating step, if the print job is not capable of being split. " (column 12, lines 59-67).

Claim 8. Roberts discloses "The method of claim 7, further including the step of determining the format of the print job." (column 12, line 61)

Claim 9. Roberts discloses "The method of claim 8, wherein the format is postscript. " (column 7, lines 57-67)

Claim 10. Roberts discloses "The method of claim 1, wherein the print job includes a document with a plurality of pages" (Fig. 4 of Roberts shows that the document has many pages.)

Claim 11. Roberts discloses "The method of claim 1, wherein the print job includes a plurality of copies of a document." (column 7, lines 48-53, various print parameters that include how many copies of a job to print.)

Claim 12. The Roberts and Goto references discloses ways to speed up printing a job.

They do not explicitly disclose "The method of claim 1, wherein the plurality of sets of pages is printed in duplex on a plurality of sheets."

However, duplex printing is well-known in the art of printing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used duplex printing

The motivation would have been to enable a way to save paper by printing on both sides of a sheet

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

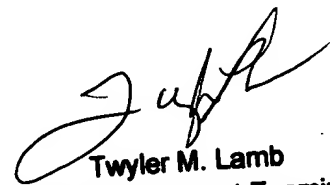
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571)272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

YQ


Twyler M. Lamb
Supervisory Patent Examiner